STATE FOREST LAND
ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/ watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered " does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

   Timber Sale Name: SPARROW *Agreement #:*30-076004

2. Name of applicant:

   Department of Natural Resources

3. Address and phone number of applicant and contact person:

   Department of Natural Resources
   South Puget Sound Regional Office
   950 Farman Avenue North
   Enumclaw, WA 98022-9282
   (360)825-1631
   Contact: Joe Brady

4. Date checklist prepared: 04/26/2004

5. Agency requesting checklist:

   Department of Natural Resources

6. Proposed timing or schedule (including phasing, if applicable):

   a. *Auction Date:* 01/25/2005
   b. *Planned contract end date (but may be extended):*10/31/2005
   c. *Phasing:* None

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   Timber Sale

   a. *Site preparation:* *No*

   b. *Regeneration Method:*

Unit 1	HAND PLANT	01/01/2006	63 Acres
Unit 2	HAND PLANT	01/01/2006	3 Acres
Unit 3	HAND PLANT	01/01/2006	24 Acres
Unit 4	HAND PLANT	01/01/2006	18 Acres

c. *Vegetation Management:* Treatment needs will be assessed using current vegetation management guidelines and control of competeing brush within the sale area and along the roads will be done in accordance with the Forestry Handbook, dated July 1999.

d. *Thinning:* Pre-commercial Thinning (PCT) needs will be assessed within 15 years after planting.

Roads: After the completion of the timber sale contract, annual road maintenance assessments will be conducted and may include periodic ditch and culvert cleanout, and road grading as needed to minimize erosion and ensure proper and efficient water drainage.

Rock Pits and/or Sale: The existing DNR Horsecamp rock pit, which will continue to be the source of surface rock for this area in the future.

Other:

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.
☒*303 (d) – listed water body in WAU:* ☐*temp* ☐*sediment* ☐*completed TMDL (total maximum daily load):*
☐*Landscape plan:*
☒*Watershed analysis:* **West Kitsap Watershed Analysis, 1995**
☐*Interdisciplinary team (ID Team) report:*
☒*Road design plan:* **dated 5/4/04***
☒*Wildlife report:* **dated 5/17/04***
☐*Geotechnical report:*
☒*Other specialist report(s):* Region geologist slope stability checklist, **dated 5/10/04***
☐*Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☒*Rock pit plan:* **See Road Plan, dated 5/4/04***
☒*Other:* **Forest Resources Plan and EIS, dated July, 1992; Final Habitat Conservation Plan and EIS, dated September, 1997; State Soil Survey, dated 1992; Road Maintenance and Abandonment Plan (RMAP) #R240027.***

Referenced documents may be obtained from the South Puget Sound Region office or the SEPA Center during the SEPA comment period.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No.

10. List any government approvals or permits that will be needed for your proposal, if known.

☐*HPA* ☐*Burning permit* ☐*Shoreline permit* ☒*Incidental take permit* ☒*FPA* ☒*Other:* Board of Natural Resources Approval

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. *Complete proposal description:*
The Sparrow Timber Sale is a 108 acre regeneration harvest located within the Green Mountain landscape in Kitsap County. The primary access roads are the GM-4, GM-41 and BB-1 roads all of which have their entrances on county roads. This proposal is approximately 10 miles, by road, west of the town of Bremerton. Sixty five percent (70 acres) of this proposal lies within the West Kitsap Watershed Administrative Unit (WAU), and the remaining thirty five percent (38 acres) is in the Chico WAU. The West Kitsap WAU has a completed watershed analysis, but the Chico WAU has not yet been evaluated. This management activity is in compliance with the 1997 DNR Habitat Conservation Plan, as well as with the Washington State Forest Practices Laws.

Roughly 27 percent of the harvest acreage is on slopes ranging from 0 to 5 percent, 32 percent is located on slopes ranging from 6 to 14 percent, 27 percent is on slopes ranging from 30 to 45 percent, 9 percent is on slopes ranging from 15 to 29 percent and the remaining 4 percent is on slopes ranging from 46 to 70 percent. Elevation ranges within the harvest units from 397 feet along the southern portions of Unit 1 to 1051 feet along the western boundary of Unit 2. Site index for Douglas-fir ranges from 86 to 117, with the majority of the units at 107. Estimated volume for this sale is 2,189 MBF.

The proposal is bounded with white DNR "Timber Sale Boundary" tags, property line with yellow flagging, orange right of way tags and roads. An average of 8 trees per acre are marked with blue paint as leave trees within the units (totaling 864 trees, or roughly 11% of the trees over 12 inches DBH). Painted leave trees were selected based on creating structural diversity for the next rotation, thus focusing on dominant & co-dominant trees, as well as those trees which exhibit significant value for various wildlife species (broken tops, snags, etc). The Region geologist and biologist have evaluated this proposal. All unstable slopes of concern are bounded out of the sale, and no wildlife or floral species of concern are found on site.

Ground based yarding equipment will be used for this harvest, with exception to approximately 75 percent of Unit 3, which will be yarded by cable. The proposal includes 7,745 feet of required prehaul maintenance and 3,848 feet of optional construction to facilitate this harvest operation. Approximately 1503 cubic yards of ballast material may be extracted from the Horsecamp Pit, which is located in the SE ¼ SW ¼ of Section 10, T24N, R01W. If all optional roads are built, approximately 2,334 feet of newly constructed roads will be abandoned prior to the termination of the contract, although the BB-14 road will remain to facilitate future forest management activities. Abandonment will consist of pulling culverts, installing water bars and placing slash and logging debris on the road surface to deter ORV use.

b. *Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.*

This proposal sits on a large flat glacial deposit with numerous streams and wetlands of various sizes. The area was logged and then experienced extensive wildfires in the early thirties. The majority of the trees are in the sixty to seventy year age classes as a result of natural regeneration after the wildfires. The overstory stand structure in all the units is even-aged Douglas fir, with an occasional old growth remnant. The major timber type is Douglas fir with a lesser component of western white pine, western hemlock, and lodgepole pine. Red alder is the major hardwood species mixed with big leaf maple and pacific madrone. The understory consists primarily of salal and huckleberry with ferns and moss in lower areas.

These Forest Management Units (FMUs) are managed to produce the highest available yield of revenue to the trusts by growing timber species that maintain the maximum growth and yield for the site and market. The objective to provide high value

marketable timber is balanced with maintaining a natural diversity of species, wildlife habitat and hydrologic function within the WAUs and landscape over time. Guidelines and requirements from the Forestry Handbook, Forest Resource Plan, the Habitat Conservation Plan, and biologists regarding habitat components, hydrologic function and stand structures apply to the West Kitsap and Chico WAUs and the entire Green Mountain State Forest**.**

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		3848	1.6	0
Reconstruction		0		0
Abandonment		2334	0.9	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	10			

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. *(See timber sale map. See also color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")*

a. Legal description:

T24N R1W S3
T24N R1W S4
T24N R1W S10
T25N R1W S33

b. Distance and direction from nearest town (include road names):

Sale is approximately 10 miles by road northwest of Gorst, WA.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")

WAU Name	WAU Acres	Proposal Acres
KITSAP, W	42016	70
CHICO	18313	38

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)

The proposal consists of four harvest units in the Green Mountain State Forest landscape, the majority of the acreage is located within the West Kitsap WAU. The information in the tables below was taken from the state GIS data layer,and pertains to both the West Kitsap and Chico WAUs. Only the West Kitsap WAU has been divided into sub-basins and has a completed watershed analysis. The Department has met the hydrologic maturity requirements for the WAU. Currently, 78% percent of the DNR manged lands in the West Kitsap WAU and 56% percent of the DNR managed lands in the Chico WAU are considered to be hydrologically mature.

West Kitsap WAU

WAU/Sub-basin	Total Acres	DNR Acres (percent of total)	Average Annual Harvest Rate (over the last 7 years) on DNR land (percent of DNR)	Non DNR Acres (percent of total)	Average Annual Harvest Rate (over the last 7 years) on Non DNR land (percent of Non DNR total)	Planned Average Annual DNR Harvesting (over the next 6 years) (percent of DNR)	Sparrow Acres (all even age)
West Kitsap WAU	**42,016**	**6,502** (15.5%)	**128**ac. (2.1 %) Even age: 95 ac. (74%) Uneven age: 33 ac. (26%)	**35,514** (84.5%)	**515** ac. (1.5%) Even age: 295ac. (51%) Uneven age: 220ac. (49%)	**71**ac. (1.2%) Even age: 71ac. (100%) Uneven age: 0 ac. (0%)	**70**

Chico WAU

WAU/Sub-basin	Total Acres	DNR Acres (percent of total)	Average Annual Harvest Rate (over the last 7 years) on DNR land (percent of DNR)	Non DNR Acres (percent of total)	Average Annual Harvest Rate (over the last 7 years) on Non DNR land (percent of Non DNR total)	Planned Average Annual DNR Harvesting (over the next 6 years) (percent of DNR)	Sparrow Acres (all even age)
Chico WAU	**18,313**	**2,614** (14.3%)	**14** ac. (0.5 %) Even age: 100ac. (99%) Uneven age: 1 ac. (1%)	**15,699** (85.7%)	**187**ac. (1.2%) Even age: 140ac. (75%) Uneven age: 47ac. (25%)	**0** ac. (0.0%) Even age: 0 ac. (0%) Uneven age: 0 ac. (0%)	**38**

This sale, combined with past and future planned sales within these WAU's, is not expected to contribute to a negative cumulative effect to the environment. Several environmental issues have been mitigated in the current proposal to assure this activity will not contribute to an increased chance of environmental impact. The primary environmental issues identified in this area were water quality, soil disturbance, unstable slopes and wildlife habitat. Both Type A wetlands near this proposal have wetland management zones protecting them. Two Type 5 streams located within the harvest areas will be protected by 30-foot equipment limitation zone. Six additional Type 5 streams are protected with at least 25-foot buffers. These buffers and equipment limitation zones will reduce sediment delivery to the streams and preserve water quality. Original harvest planning included the areas downslope of Unit 1. After intensive review in the field, these slopes were determined to be unstable and that harvesting the timber in these areas would pose a threat of sediment delivery to Big Beef Creek.

Wildlife habitat with this proposal is protected in the Riparian Management Zones, Wetland Management Zones and with leave trees. Ground based equipment will be limited to slopes less than 35 percent. During yarding one end of the log will be required to be suspended above the ground to reduce soil disturbance. A total of 864 leave trees have been left to preserve structural diversity for wildlife habitat, the majority of which are clumped in groups ranging from 8 to 24 trees. The site will be planted within two years of harvest with Douglas-fir. Roads have been designed to avoid potentially sensitive areas and are located on stable slopes. All roads have been designed by the district engineer and will have adequate drainage structures that comply with all HCP and Forest Practice Rules.

Future activities in these WAUs within the next 2 years include road maintenance, timber harvest and silviculture activities. These activities will continue to follow Forest Practices Rules and the HCP. This will ensure that all components of the environment are adequately protected.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☐Rolling, ☐Hilly, ☐Steep Slopes, ☐Mountainous, ☒Other:

Unit 1: Rolling topography with gentle slopes.
Units 2 and 4 : Slopes approaching, but not over 30%.
Unit 3: Slopes that occasionally reach 50%.

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).
The sale involves two WAUs:

The West Kitsap WAU landform is mostly flat to rolling glaciated terrain with steep incised stream channels and shoreline slopes located in western Kitsap County. Drainage within the West Kitsap WAU consists of numerouse small streams emptying into northern Hood Canal. Elevations range from sea level to approximately 1283 feet. The climate is relatively mild with mean annual precipitation of 55 inches. The mean annual air temperature is 49 degrees Fahrenheit.

The timber within the WAU is 98 percent second and third growth Douglas-fir. Western hemlock, red alder, western red cedar, big leaf maple, madrone, and western white pine are also present. The understory consists primarily of salal and huckleberry with ferns, Rhododendrons, grasses and mosses in lower areas.

The Chico WAU is very similar to that of the West Kitsap WAU, except that it's stream drainages empty into Dyes Inlet.

Both of these WAUs are extensively developed with suburban to urban populations in areas.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

None.

b. What is the steepest slope on the site (approximate percent slope)?

Approximately 50 percent on less than one percent of the harvest area.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
7327	XTR.GRAVELLY SANDY LOAM	6-15	35	INSIGNIFIC'T	LOW
7326	XTR.GRAVELLY SANDY LOAM	0-6	29	INSIGNIFIC'T	LOW
7337	V.GRAVELLY SANDY LOAM	30-45	29	LOW	MEDIUM
7336	V.GRAVELLY SANDY LOAM	15-30	9	INSIGNIFIC'T	LOW
3893	KILCHIS-SHELTON-COMPLEX	30-50	5	No Data	No Data
1731	GRAVELLY SANDY LOAM	45-70	1	HIGH	HIGH

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

1) Surface indications:

Yes. Several locations above Big Beef Creek and south of Unit 1 contain inner gorges with the head of the gorges apparently receding with minor tension cracking along the crown. See Region geologist's report for further details, on file at the Region office.

2) *Is there evidence of natural slope failures in the sub-basin(s)?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
Big Beef sub-basin: There is evidence of both types of failures. Slopes 60 percent or greater are underlain by glacial sediments and have been undercut by the stream channel or shoreline. These areas are at least ¼ mile or more away from the sale. This information is obtained from the West Kitsap Watershed Analysis. As referred to in the geologists' memo, there is evidence of a possible relict deep-seated movement south of Unit 1 above Big Beef Creek.

Chico WAU: Some natural shallow slope failures have occurred from channel migration during heavy rain events. This has occurred within the incised channels of streams and along steep slopes above Dyes Inlet. No evidence of the past slope failures within the harvest site were found during field inspection. See Geologist's report.

3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
Associated management activity:
For the WAUs, there have been shallow failures associated with past timber harvest and road construction. These failures were primarily caused by poor road locations, inadequate engineering/design of the roads and lack of road maintenance. The District engineer has inspected the existing roads and found none that are located on steep or unstable slopes associated with this proposal. No known deep seated failures have occurred within the sale area due to timber harvest or associated road activity. See Region geologist's report.

4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*
☒*No* ☐*Yes, describe similarities between the conditions and activities on these sites:*

5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*

Watershed maps and the West Kitsap Watershed Analysis prescriptions were analyzed and the proposed activity is in compliance. Specifically to this sale, prescriptions concerning mass wasting, road, and surface erosion were addressed.

To comply with the watershed analysis prescriptions, several actions were applied to the sale. The sale area was evaluated for potential unstable slopes by the Region geologist. The harvest boundary in Unit 1 averages 450 feet away from Big Beef Creek and 25' feet from the break in slope down to the creek. A Type 5 stream between Units 2 and 3, which was determined to drain into the West Kitsap WAU was protected by a 25 foot no entry buffer on both sides.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Approx. acreage new roads: 1.6 (0.9 is temporary) *Approx. acreage new landings:* Approximately 1.0

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes**.** There is potential for an incidental amount of erosion to occur, but with control measures such as proper culvert installation and regular maintenance, delivery of sediment to streams and wetlands will be eliminated. Riparian Management Zones, Wetland Management Zones and the placement of culverts to drain water onto the forest floor (as opposed to into existing watercourses) will reduce the possibility for eroded material from entering typed waters.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

The Purchaser will have the option of constructing up to 1.6 acres (1.5 % of harvest area) of new gravel road to facilitate the harvest operation. All roads built, with the exception of the BB-14, will be abandoned.

h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)

Roads will be constructed and re-constructed during dry weather only. Erosion will be controlled during construction and re-construction with erosion control devices such as straw bales and silt fencing if necessary. Yarding and hauling will be restricted during wet weather if excessive rutting occurs in the opinion of the contract administrator.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling*, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Incidental amounts of exhaust produced by harvest equipment or dust created by the movement of the same equipment.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map and forest practice base maps.)*

There are several streams and wetlands adjacent to the proposal. See sale map and the following table for further details.

a) Downstream water bodies:

Some of the typed streams associated with this proposal flow into Chico Creek and eventually into Dyes Inlet and the Puget Sound. A large portion of the sale is in the hydrographic boundary of the West Kitsap WAU (a WAU that contains 303d streams). There is no surface water in or close to that portion of the sale. The DNR's HCP covers 303d waters. These streams generally flow northward towards the upper Hood Canal.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Stream (**outside** harvest area)	5*	6	25 + feet
Stream	3	1	125 feet
Wetlands	A	2	125 feet
Big Beef Creek	2	1	450 feet (see B.1.d.5 above)

* Two Type 5 streams within the units will be protected with a 30-foot equipment limitation zones (ELZs).

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

Buffers on all streams and wetlands adjacent to the timber sale (shown on the timber sale map) meet the requirements of the DNR Habitat Conservation Plan (DNR HCP) and the West Kitsap Watershed Analysis prescriptions. Two Type 5 streams, neither of which are inside the hydrologic boundary of the West Kitsap WAU, will be protected with a 30 foot equipment limitation zone as required by Forest Practice Rules.

2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐*No* ☒*Yes (See RMZ/WMZ table above and timber sale map.)*
Description (include culverts):

Harvest activities will occur beyond the distances listed for RMZs from streams in the above table. All activities associated with this proposal are in compliance with the DNR's HCP and State Forest Practices Rules. One 24 inch culvert will be installed for the temporary Type 5 stream culvert on Spur 2, if built. No proposed road construction crosses perennial water.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation.)*
☒*No* ☐*Yes, description:*

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒*No* ☐*Yes, describe location:*

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒*No* ☐*Yes, type and volume:*

7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?

These WAUs contain a small percentage of terrain that is highly susceptible to erosion, some near streams. Some eroded material near streams may enter surface water.

8) Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?
☐*No* ☒*Yes, describe changes and possible causes:*

West Kitsap WAU: Many streams within the WAU have excessive amounts of sediment loading due to erosion. Parts of these streams also show evidence of scour and in channel erosion. In addition, streams which have cut steep incised channels through the till and outwash soils are highly erodable, and can produce sediment through surface debris slides. Many private development and logging roads in the county are not maintained and produce sediment through runoff.

Chico WAU: Streams within the WAU have experienced accelerated aggradations in low gradient reaches. In general, the stream systems currently contain excess fine sediments. This has occurred primarily from natural storm events.

9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☒*No* ☐*Yes, explain:*

The proposal should have no affect on stream and water quality due to proper road design and construction, and wet weather operating restrictions.

10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*
Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☐*No* ☒*Yes, describe:*

West Kitsap WAU: Because of the amount of development, there are 20.1 miles of road per square mile in the West Kitsap WAU. An estimated 15 percent of the total roads are carrying water for extended periods of time. DNR lands in the West Kitsap WAU contain only 4**.** 3 miles of road per square mile. Most of the roads in the WAU are county roads of which 40 percent are paved.

Chico WAU: The Chico WAU is extensively developed, and thus has approximately 8.6 miles of road per section. An estimated 22% of these roads are carrying water for periods of time. DNR lands within the WAU average 6.1miles per section.

11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☒*No* ☐*Yes, approximate percent of WAU in significant ROS zone.*
Approximate percent of sub-basin(s):

12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*

13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☐*No* ☒*Yes, describe observations:*

West Kitsap WAU: Many streams within the WAU have excessive amounts of sediment loading due to erosion. Parts of these streams also show evidence of scour, channel erosion, and deposition behind large woody debris. In addition, streams that cut steep incised channels through the till and outwash soils are more highly erodible and produce sediment through surface debris slides.

Chico WAU: Streams within the WAU have experienced accelerated aggradation. In general, the stream systems currently contain excess fine sediments. This has occurred primarily from natural storm events. Since channel migration zones are wider and stream gradients are lower, there isn't as much scouring, cutting, and coarse material movement.

14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

The current proposal with mitigation measures for erosion and stream and wetland protection, along with landscape level practices to maintain mature forest components will not significantly increase water runoff beyond historical levels.

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☒*No* ☐*Yes, possible impacts:*

16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*

Some minor runoff may occur from roads during peak flow, but cross drain culverts have been designed to direct ditchwater onto the forest floor prior to entering surface water where possible. Annual maintenance inspections and maintenance will prevent any major failures.

b. Ground *Water*:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Does not apply.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Insignificant amounts of oil and other lubricants may be discharged inadvertently as a result of heavy equipment use. No oils or lubricants will be disposed of on site.

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☒*No* ☐*Yes, describe:*

a) Note protection measures, if any.

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water runoff will be collected by ditches and diverted through cross drain culverts onto the forest floor where possible. Culverts or out-sloping will be placed to minimize the amount of ditch water directly entering existing stream channels. Minor amounts of ditch water may flow directly into Type 5 streams.

2) Could waste materials enter ground or surface waters? If so, generally describe.

Insignificant amounts of oil and other lubricants may be discharged inadvertently as a result of heavy equipment use.

a) Note protection measures, if any.

The wetland and riparian management zones will reduce the possibility of waste materials entering surface waters. No lubricants or containers will be disposed of on site.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

4. Plants

a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☒alder, ☒maple, ☐aspen, ☐*cottonwood,* ☐*western larch,* ☐*birch,* ☒*other: Pacific madrone*
☒evergreen tree: ☒*Douglas fir,* ☐*grand fir,* ☐*Pacific silver fir,* ☐*ponderosa pine,* ☒*lodgepole pine,* ☒*western hemlock,* ☐*mountain hemlock,* ☐*Englemann spruce,* ☐*Sitka spruce,* ☒*red cedar,* ☐*yellow cedar,* ☒*other: Western white pine*
☒shrubs: ☒*huckleberry,* ☐*salmonberry,* ☒*salal,* ☐*other:*
☐grass
☐pasture
☐crop or grain
☐wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☐skunk cabbage, ☐*devil's club,* ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☐other types of vegetation:
☐*plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*

1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")

Unit 1:

North: 70+ year-old DNR timber,
East: 15 year old DNR plantation,
South: 70+ year-old DNR timber (RMZ),
West: 70+ year-old DNR timber (RMZ).

Unit 2:

North: County rock pit,
East: Unit #3,
South: 65 year-old DNR timber,
West: 26 year-old DNR plantation,

Unit 3:

North: 65 year-old DNR timber,
East: 60 year old DNR timber,
South: 26 year-old DNR plantation,
West: 26 year-old DNR plantation.

Unit 4:

North: 60 year-old DNR timber,
East: 5 year old DNR planatation,
South: 26 year-old DNR plantation,
West: 60 year-old DNR timber.

2) Retention tree plan:

Units 1, 2, and 4:
These units have very few snags. Eight trees per acre are left within the proposal, the majority of which are clumped in groups ranging from 8 to 24 trees. The leave trees are vigorous second growth Douglas-fir, western white pine, and western hemlock. All residual old growth Douglas fir within the unit are selected as leave trees.

Unit 3:
The majority of the leave trees required for this unit were concentrated in a Type 5 stream drainage that bisects the unit. The majority of the leave trees are vigorous second growth Douglas-fir, western white pine, and western hemlock. All residual old growth were painted as leave trees as well, regardless of their locations within the unit.

c. List threatened or endangered *plant* species known to be on or near the site.

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Within 2 years following harvest, hand-planting Douglas-fir will re-establish plantation.

5. Animal

a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☐hawk, ☐heron, ☐eagle, ☒songbirds, ☐*pigeon,* ☐other:
mammals: ☒deer, ☒bear, ☐elk, ☒beaver, ☐other:
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐*talus slopes,* ☐*caves,* ☐*cliffs,* ☐*oak woodlands,* ☐*balds,* ☐*mineral springs*

b. List any threatened or endangered species known to be on or near the site *(include federal- and state-listed species).*

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:* *Explain if any boxes checked:*

All of western Washington is in the Pacific flyway.

d. Proposed measures to preserve or enhance wildlife, if any:

Leave trees were left in clumps throughout the units ranging from 8 to 24 trees per clump. This will aid in keeping undisturbed patches of habitat at regular intervals throughout the harvest area. Trees with double or broken tops, as well as residual old growth, were selected as leave trees.

1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.

This proposed sale conforms to all regulations under the 1997 DNR Habitat Conservation Plan (HCP) and prescriptions included in the West Kitsap Watershed Analysis. The HCP includes a number of strategies to enhance and preserve wildlife over time. Specific to this proposal is the riparian strategy (to conserve and protect habitat for species that are dependent on aquatic and riparian habitat), and quality leave tree retention (which may provide critical elements for upland species and preserve long term site productivity through the maintenance of forest processes). Leave trees are wind firm and well-formed dominant and co-dominant trees representing the current diversity of species.

In addition, individual species and tree types known to have high wildlife use have been retained. Trees with unique characteristics (such as forked or damaged tops) will be retained throughout the sale to provide current and future habitat for a variety of wildlife species including woodpeckers, sapsuckers, and cavity dwellers. Some of the marked leave trees may be "hazard trees" as defined by L&I. All hazard trees may be cut to comply with safety regulations.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Does not apply.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Minimal health hazard due to operation heavy equipment and the minor spillage of fuel and lubrication oils are always present with this type of operation. The risk of forest fire is always present and will be increased for about two years following harvest due to logging slash.

1) Describe special emergency services that might be required.

The Department of Natural Resources, private and fire protection district fire suppression resources. Emergency medical or air ambulance for personnel injuries. Hazardous material spills may require Department of Ecology and/or county assistance.

2) Proposed measures to reduce or control environmental health hazards, if any:

Fire equipment will be required on site during closed fire season.
Operations will cease if relative humidity falls below 30%.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None.

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

Logging, road construction and maintenance and forest products hauling operations will create increased noise during the operating season. None of this is an increase above normal historical use.

3) Proposed measures to reduce or control noise impacts, if any:

Logging and hauling will not be permitted on weekends or holidays.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? *(Site includes the complete proposal, e.g. rock pits and access roads.)*

Timber production/forest management (forestry).

b. Has the site been used for agriculture? If so, describe.

No.

c. Describe any structures on the site.

None.

d. Will any structures be demolished? If so, what?

Does not apply.

e. What is the current zoning classification of the site?

Forest Management.

f. What is the current comprehensive plan designation of the site?

Resource Lands.

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable.

h. Has any part of the site been classified as an “environmentally sensitive” area? If so, specify.

No.

i. Approximately how many people would reside or work in the completed project?

None.

j. Approximately how many people would the completed project displace?

Does not apply.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

This proposal is compatible with surrounding land uses and with the comprehensive plan.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Does not apply.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Does not apply.

c. Proposed measures to reduce or control housing impacts, if any:

Does not apply.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?

Does not apply.

b. What views in the immediate vicinity would be altered or obstructed?

Unit 1 is not visible from public roads due to its flat topography, but units 2, 3, and 4 will be visible. The removal of the timber will not be a change from historical or recent norms. Past harvesting has occurred in stands adjacent to this proposal.

1) Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?
☐*No* ☒*Yes, viewing location:*

Units 2, 3, and 4 will be visible from the Wildcat Lake residential area approximately ¼ to ½ mile to the east, as well as from other areas east of Green Mountain State forest.

2) Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?
☒*No* ☐*Yes, scenic corridor name:*

3) How will this proposal affect any views described in 1) or 2) above?

There are mature leave trees spread throughout the units. Portions of the sale will be visible at a distance from residential areas in the vicinity.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Second growth timber adjacent to the site and the retention tree plan will lessen aesthetic impacts. See the answers in 10. b. and c. above.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does not apply.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does not apply.

c. What existing off-site sources of light or glare may affect your proposal?

Does not apply.

d. Proposed measures to reduce or control light and glare impacts, if any:

Does not apply.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Hunting and mushroom picking take place on site. Horseback riding, walking, ORV and bike riding take place adjacent to the site. There are no designated trail systems within the sale area, but the Wildcat trail is in the vicinity. There are also informal, user-built trails immediately adjacent to the sale area.

b. Would the proposed project displace any existing recreational uses? If so, describe:

Yes. Hunting and mushroom picking will be temporarily displaced during harvest operations. The boundaries of Units 3 and 4 were designed to not disturb the popular Wildcat trail, which is a major hiking/biking trail in the Green Mountain State Forest.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Information on the temporary trail closure and alternate trail use will be presented at the local focus group meeting. During the logging operation there will be trail closure signs posted at various trail heads and at entry points on the trails by the local DNR trail crew.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

None are shown on the Forest Management Planning and Tracking System Special Concerns Report. None found on site.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

Forest Management Planning and Tracking System Special Concerns Report does not indicate any such issues. None found on site.

c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

Does not apply.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Unit 1 is accessed via the BB-1 mainline system, which is accessed through the Lake Symington community, most notably Big Beef Crossing and Reding Trail Roads.

Unit 2, 3, and 4 are accessed via the Rock Quarry, GM 4 and 41 roads, which are accessible via the NW Holly county road.

See Timber Sale Vicinity map, on file at the South Puget Sound Regional Office in Enumclaw, for more details.

1) Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?

This proposal will not contribute to an existing transportation problem since it will not differ from historic norms. It will temporarily increase truck traffic along the county road and residential area during the hauling months.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No. The nearest transit stop is approximately 2 miles away near the intersection of the Seabeck Highway and the NW Holly road.

c. How many parking spaces would the completed project have? How many would the project eliminate?

Does not apply.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

There is no required permanent construction, although optional construction on the BB-14 road will be permanent if it is built. See road description A. 11. c..

1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?

There will be a short-term increase in traffic during the operation period. It is all within the character and standard volume of existing traffic in the area. The established forest roads and constructed roads under this proposal will not affect the overall transportation system to the public since these roads are closed to public use.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Peak traffic volumes may occur during the summer months. Up to 12 log truck trips per day could be possible. No log truck traffic will occur under this proposal after the sale is complete, nor will there be traffic on weekends and holidays.

g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Wildfire would need response from the Department of Natural Resources and County Fire Protection District.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Does not apply.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: ____Joseph Brady_____Date: ____5/2/04_____
Operations forester for the Tahuya and Green Mountain Forests

Reviewed by: _____Herb Cargill_____Date: _____6/21/04_____
Operations Manager

Approved by: _____Date: _____
Eric Schroff, South Puget Sound Region Manager